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NIXON & VANDERHYE, P.C.
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
PAPPAS, PETER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/078,526
Filing Date: February 21, 2002
Appellant(s): STERCHI ET AL.

Joseph S. Presta
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/20/07 appealing from the Office action mailed 3/20/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The prior 35 U.S.C 101 rejection has been withdrawn after further consideration.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6545682	Ventrella et al.	4-2003
2003/0206170	Bickmore et al.	11-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ventrella et al. (U.S. Patent No. 6, 545, 682) in view of Bickmore et al. (Pub. No. US 2003/0206170 A1).

In regard to claim 1 Ventrella et al. teaches a method and apparatus for creating, animating and rendering a user-controlled 3D avatar in a dynamic 3D virtual environment (col. 2, lines 63-64; col. 7, lines 60-62; col. 9, lines 32-45; col. 18, lines 24-27; Fig. 9) in real time (col. 10, lines 7-11), wherein said avatar interacts with various stimuli (tags), within said virtual environment, when said stimuli occurs close (in proximity) to said avatar (col. 19, lines 40-59; col. 18, lines 13-34). Ventrella et al. teaches that at least one variable can be associated with said avatar (e.g., the

orientation of said avatar) and that said variable can be used to influence a change in said user-controlled avatar (col. 14, lines 45-67; col. 17, lines 57-67).

Ventrella et al. teaches that avatar genotypes may be designed by, for example, the vendor of the simulation system or a third party vendor, to create a set of default or archetypal avatars. These archetypes may then be customized by the end users or used unmodified by the end users. To create a complex, highly realistic virtual world; however, it is desirable to have very large numbers (potentially thousands or millions) of unique avatars. Creating such an environment can be difficult if so many avatars (or avatar defaults or archetypes) must be created manually. One solution is to use a pseudorandom number generator to automatically assign the individual values for each gene of each avatar, in order to create a large, statistically diverse population of avatars (col. 8, lines 32-49).

Ventrella et al. fails to explicitly teach assigning tag information to said tag. Bickmore et al. teaches defining an object (tag) and assigning avatar reference properties (tag information) to said object, wherein said reference properties designate a type of reaction (defined behavior) for an avatar (character) when, for example, it is dragged over (in proximity to) said object (p. 5, ¶ 61-64; p. 6, ¶ 69). It is noted said object is considered external to said avatar. Said avatar can be animated using a scripted animation sequence (i.e. stored in an avatar script file 520), as defined by user input (p. 4, ¶ 50-53). When said avatar is dragged over an object (within predetermined proximity to a tag) the location of said object and said avatar reference properties are used to modify the animation of said avatar at run-time (p. 6, ¶ 69; p. 3, ¶ 42; p. 5, ¶ 66).

It is noted that modifying said animation at run-time is considered to result in real-time animation.

Bickmore et al. teaches that the avatar 114 or 132 is used to allow the document author 110 or the avatar creator 130 to annotate the electronic document 112 with that avatar creator's personal views (p. 3 , 38; Fig. 1). In operation, a new avatar context is created and all the required avatar definition and script files are loaded. When the document reader 140 clicks on an avatar link, the first behavior/avatar pair associated with the link is performed. If the document reader 140 drags the avatar 132 over a document object for which the avatar 132 has a defined behavior defined, the avatar 132 performs a DRAG_HANDLE behavior if that behavior has been defined (p. 6, ¶ 69; Fig. 1).

Bickmore et al. further teaches that the avatars can also interact with the document itself by, for example, selecting hypertext links in the document pages. This gives the avatars the ability to provide customized presentations, or "guided tours" of documents (p. 1, ¶ 11). Three other primitives allow the avatar to simulate mouse clicks on document objects, thus enabling the avatar to give a guided tour through a series of hypertext linked objects. These primitives all reference a named object on the document. For example, in HTML, the referenced name is that defined in the standard name property of the "A tag" (p. 5, ¶ 58). It is implicitly taught that selecting a hypertext link for navigation, as taught by Bickmore et al., would result in the display (animation) of new information, tied to said hypertext link, within an area of said hypertext link (e.g., the display of a new page of information overlaid on a previous page after said

hypertext link is selected). Bickmore et al. also teaches that in one example multiple avatars are docked in a margin and another is positioned over text wherein said text comprises links and wherein said links may cause one or more of the docked avatars to activate and perform a specific behavior. Bickmore et al. teaches that the reader may then move the first avatar back to the margin before the second avatar moves to the link (p. 6, ¶ 70). It is noted that performing said behaviors and the movement of another avatar, which is tied to a given link (i.e., object), is considered to read on the animation of an object (e.g., via said connected avatar).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the assignment of tag information to tags, as taught by Bickmore et al., into the method taught Ventrella et al., because Ventrella et al. teaches that stimuli can be prioritized using any reasonable criteria (col. 19, lines 21-58) and thus by having a priority value directly assigned to a given stimuli, wherein said assignment is calculated in respect to the priority assignments assigned to respective stimuli of the same virtual environment, it would allow for a more realistic interaction between said stimuli and an avatar as a given stimuli would be able to override (via a set priority value) any other concurrently running stimuli thus imparting a weight to the significance of a given stimuli. For example, consider a virtual environment wherein a given avatar is placed within the boundaries of a burning forest. Such a scene would warrant careful consideration of the prioritization of stimuli in said virtual environment so that the stimuli/object (i.e., the burning forest) and the respective priority (tag) value (tag information) of said forest, when in close proximity to said avatar, would take

immediate priority over all other stimuli concurrently running in said virtual environment and ideally behoove said avatar to act accordingly – to attempt to escape any impending harm regardless of any other surrounding stimuli and their respective priority settings.

While Ventrella et al. and Bickmore et al. each teach that separate entities (e.g., third party vendor, end user, document author, avatar creator, document reader) are involved in both the use and creation of said avatars said references fail to explicitly teach that the tag is invisible to the user. Official Notice is taken that both the concept and the advantages of having said avatars setup by different people then those people who are to use said avatars, thus resulting in said user not having a hand in the setup of said avatars, are well known and expect in the art. Thus, it would have been obvious to one skilled in the art, at the time of the Applicant's invention, that either said end user or said document reader would not be the creators of said avatar, as is supported by the teachings of both references, because it is conventional in the art, especially in the field of video games, to have, for example, game designers or the like create characters for end users to use in a virtual environment, wherein said users are generally unable to modify the influence of surrounding stimuli on said avatars (e.g., said users would not know of the presence of a given tag or how the tag will affect the animation) simply because it would conflict with the scripting of many conventional games and would render said games non-functional.

In regard to claim 2 Ventrella et al. fails to explicitly teach detecting when the characters is no longer within the predetermined proximity to the tag and upon such

detection, retuning to the scripted animation for the character. Bickmore et al. teaches detecting when said avatar is no longer over an object (DRAG_NOHANDLE is enabled) and upon such detection returns to the scripted animation (i.e. idle behavior, etc.) for the character (p. 5, ¶ 59; p. 6, ¶ 69). The motivation disclosed in the rejection of claim 1 is incorporated herein.

In regard to claim 3 Ventrella et al. teaches that the blending of animation scripts, at each frame of the output script, can be accomplished by computing a feature as a weighted function of said feature in the corresponding frames of each of the input scripts (col. 10, lines 11-21). It is noted that the process disclosed above is considered key framing and that in computer implementations of keyframing the process known as tweening, inbetweening and/or in-betweening is considered a component thereof. Ventrella et al. further teaches that skeletal bone rotations are determined by various sources and then modified, if appropriate, by the Inverse Kinematics (IK) module in the animation system (col. 11, lines 6-9).

In regard to claim 4 Ventrella et al. teaches defining human-like reaction (based on personality traits) as the type of reaction and generating an animation that corresponds to said human-like reaction (col. 5, lines 61-64; col. 3, lines 23-25; col.s 17-18, lines 32-67 and 1-34, respectively).

In regard to claim 5 Ventrella et al. teaches that the head of the avatar may be turned, for example, in response to a control input from the user or in response to some other stimuli that is independent of the user (col. 18, lines 13-34). It is noted said animation is considered to be executed in real-time.

In regard to claim 6 Ventrella et al. teaches a plurality of tags at different locations in a virtual world (col. 19, lines 21-34). Ventrella et al. fails to explicitly teach assigning tag information to each tag, wherein each tag causes a different dynamic animation sequence to be generated for the character when within a predetermined proximity thereto. The rationale disclosed in the rejection of claim 1 is incorporated herein (Bickmore et al. – p. 6, ¶ 69).

In regard to claim 7 Ventrella et al. teaches that the curiosity gene determines the tendency of the avatar to look, automatically toward a low-priority stimulus in the absence of a high-priority stimulus (col. 19, lines 20-34). Ventrella et al. fails to explicitly teach assigning a priority value to each tag. The rationale disclosed in the rejection of claims 2 and 6 is incorporated herein.

In regard to claim 8 the rationale provided in the rejection of claim 2 is incorporated herein.

In regard to claim 9 the rationale provided in the rejection of claim 3 is incorporated herein.

In regard to claim 10 the rationale provided in the rejection of claim 4 is incorporated herein.

In regard to claim 11 the rationale provided in the rejection of claim 5 is incorporated herein.

In regard to claim 12 the rationale disclosed in the rejection of claim 1 is incorporated herein.

In regard to claim 13 the rationale disclosed in the rejection of claim 7 is incorporated herein.

In regard to claim 14 the rationale provided in the rejection of claim 3 is incorporated herein.

In regard to claim 15 the rationale provided in the rejection of claim 4 is incorporated herein.

In regard to claim 16 the rationale provided in the rejection of claim 5 is incorporated herein.

(10) Response to Argument

The prior 35 U.S.C. 101 rejection said rejection has been withdrawn after further consideration. In response to Applicant's remarks that the prior Examiner's response was neither helpful nor warranted by the MPEP it is noted that the Applicant was invited to contact the Examiner to discuss said 35 U.S.C. 101 rejection.

Disclosed above in the rejection of claim 1 is an example provided by the Examiner:

> "For example, consider a virtual environment wherein a given avatar is placed within the boundaries of a burning forest. Such a scene would warrant careful consideration of the prioritization of stimuli in said virtual environment so that the stimuli/object (i.e., the burning forest) and the respective priority (tag) value (tag information) of said forest, when in close proximity to said avatar, would take immediate priority over all other stimuli concurrently running in said virtual environment and ideally

behoove said avatar to act accordingly – to attempt to escape any impending harm regardless of any other surrounding stimuli and their respective priority settings."

The Applicant remarks that the Examiner seems to classify said burning forest as being both an object and a tag and that it is the position of the Applicant that said burning forest is the virtual environment itself. The Examiner does not agree. Said forest is considered part of said virtual environment and not necessarily representative of the whole environment. As previously stated "...the stimuli (i.e., the burning forest) ... would take immediate priority over all other stimuli concurrently running in said virtual environment..." It is clear from the underlined language that said forest is one of a possible plurality of stimuli running in said virtual environment. If said forest was the sole stimuli, if said forest was indeed the virtual environment, then there would be no room for additional environments. There would thus be no point in comparing priorities as said forest would be the only object by which to test said priorities against (i.e., one would not test it against itself).

In response to Applicant's remarks that assuming that the bird is a tagged object Ventrella et al. simply does not teach or suggest doing anything to the bird itself it is noted that the Applicant themselves disclose "...according to Ventrella et, an avatar might stare at a bird or turn its head to follow the flight of the bird..." It is noted the flight of a bird is considered by the Examiner to be a given action undertaken by said bird. The Examiner does agree that Ventrella et al. does not explicitly disclose that said bird flies away in response to said head turning. However, Ventrella et al. is not introduced

to address the respective limitations as a whole. Said respective rejections are rejected based on a combination of references. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is noted that the combination of said references is considered to result in a system which would allow for said bird to in fact have values (tag information) associated with it so that when said avatar turns to stare at said bird in flight that said bird might adjust its flight depending on the type of tag information associated with said bird (e.g., fear of detection, which might incline the bird to adjust its course and fly in a direction away from said avatar when detected by said avatar).

In response to Applicant's remarks that replacing a single static webpage with another single static webpage is not animation as required by the claim it is noted that said claims fail to disclose what exactly is required for said animation. It is the position of the Examiner that one form animation reads on: the display of a plurality of frames in a sequence and wherein said frames share some commonality. The Examiner does not maintain that this is the sole definition of animation. One may also argue that animation requires movement. However, lets take the example of a plurality of displayed static images, each a respective color (e.g., blue, green, red), that are rapidly displayed in a given sequence on a display screen one after the other. Would one not consider said display to be an animation even in the absence of motion? Based on this reasoning it is noted that the opening of a plurality of webpages, one after another (i.e. each replacing

the other), wherein said webpages share some commonality (e.g., a common origin such as a link embedded on a specific page) is considered to read on one form of animation.

In response to Applicant's remarks that given the purported teachings of the alleged combination, a user controlled character coming into proximity to a tagged object would cause an animation of the user-controlled character and an animation of the underlying virtual environment the Examiner does not agree. Said virtual environment is not necessary animated in its entirely – merely a portion is animated (e.g., an avatar). For example, Bickmore et al. teaches that in one example multiple avatars are docked in a margin and another is positioned over text wherein said text comprises links and wherein said links may cause one or more of the docked avatars to activate and perform a specific behavior. Bickmore et al. teaches that the reader may then move the first avatar back to the margin before the second avatar moves to the link (p. 6, ¶ 70).

In response to Applicant's remarks that Bickmore et al. is directed to a 2D environment while the respective claims are directed to a 3D environment it is noted that Ventrella et al. teaches a 3D environment. Ventrella et al. in combination with Bickmore et al. are considered to read on the respective claim limitations. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, it is the position of the Examiner that any animation performed in 2D can

be performed equally in 3D. The fact that the dimension will vary by one degree does not render said combination inoperable.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Peter-Anthony Pappas
Examiner
AU 2628

Conferees:

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER

MARK ZIMMERMAN